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09/833,219	04/10/2001	Eric Klinker	21089000100	1676

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EXAMINER

TSEGAYE, SABA

ART UNIT PAPER NUMBER

2662

DATE MAILED: 10/22/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/833,219

Applicant(s)

KLINKER ET AL.

Examiner

Saba Tsegaye

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-25 is/are allowed.
- 6) ☒ Claim(s) 1-18, 26 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Crawley et al. (US 5,953,312).

Crawley discloses, in Fig. 1, a method for maintaining a traffic service level for data communicated by a computer network having a source (10), the computer network coupled to at least one of a plurality of networks (14-24), each of the networks includes a plurality of paths for transporting the data communicated to a destination (12), where at least two of the networks are electrically coupled at an interconnection point and where the data communicated flows through the interconnection point (column 3, 26-34; column 7, lines 4-25), the method comprising:

monitoring the traffic service level associated with one of the plurality of paths between the source and the destination (column 3, lines 48-51);

determining whether the traffic service level associated with the one of the plurality of paths meet one or more performance metrics (column 1, lines 29-46; column 4, lines 49-51);

indicating a service level violation when a flow of data communicated over the monitored path between the source and the destination fails at least one of the performance metrics (column 3, lines 59-64; column 4, lines 55-57); and

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selecting an alternate path from the other of the plurality of paths between the source and the destination (column 2, lines 50-63; column 4, lines 1-4, and lines 57-59),

wherein the alternate path provides for a traffic service level that resolves the service level violation from the source to the destination (column 5, lines 25-37).

Regarding claim 2, Crawly discloses a method wherein selecting the alternate path further comprises:

Monitoring the traffic service level associated with the other of the plurality of paths between the source and the destination (column 5, lines 25-37);

Determining a subset of alternative paths that meet the one or more performance metrics, where the subset of alternative paths is configured to transport data between the source and the destination (column 5, lines 27-37);

Choosing an optimized path between the source and the destination using a set of statistical data from the subset of alternative paths (column 5, lines 25-37); and

Applying the optimized path (column 5, lines 25-37), wherein the optimized path resolves service level violations associated with the path from the destination to the source (column 6, lines 40-59).

Regarding claim 3, Crawly discloses the method wherein choosing the optimized path comprises:

storing the monitored flows of data communicated over each of the plurality of paths as statistical data (column 7, lines 4-27); and

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retrieving the statistical data (column 7, lines 18-20).

Regarding claim 4, Crawly discloses the method further comprising routing the flow of data from the monitored path that fails at least one of the performance metrics paths to the alternate path (column 5, lines 25-37).

Regarding claim 5, Crawly discloses the method wherein routing the flow of data includes changing one or more source addresses in a routing table to include the optimized path from the destination to the source (column 5, lines 1-12).

Regarding claim 6, Crawly discloses the method further comprising storing the monitored flows of data communicated over each of the plurality of paths as statistical data (column 7, lines 4-27).

Regarding claim 7, Crawly discloses the method wherein the optimized path is applied to a routing table available to the network (column 7, lines 4-27).

Regarding claim 8, Crawly discloses the method wherein the optimized path is an egress path (column 7, lines 4-27).

Regarding claim 9, Crawly discloses the method wherein the one of the plurality of paths is a default route path (column 6, lines 40-59).

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Regarding claim 14, Crawly discloses the method wherein monitoring the traffic service level associated with each of the plurality of paths between the source and the destination further comprises:

determining whether the flow of data is a specific traffic type (column 4, lines 11-19);
and

classifying the flow of data as the specific traffic type (column 7, lines 44-48), wherein the specific traffic type is used in routing the flow of data (column 7, lines 44-54).

3. Claims 15-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Bertin et al. (US 6,400,681).

Bertin discloses, in Fig. 2, a method for maintaining a traffic service level for data communicated by a computer network having a source (213-217), the computer network coupled to at least one of a plurality of networks (211, 214, 200), each of the networks includes a plurality of paths (210, 209) for transporting the data communicated to a destination (212), where at least two of the networks are electrically coupled at an interconnection point and where the data communicated flows through the interconnection point (column 6, lines 56-67), the method comprising:

capturing one or more data packets flowing from a source address to a destination address (column 7, lines 9-30);

parsing the one or more data packets to retrieve packet information (column 7, lines 24-30);

combining the packet information from the one or more data packets into one or more

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traffic flows (column 7, lines 9-30, column 8, lines 45-51);

interpreting a service level for each of the one or more traffic flows from the packet information of the one or more captured data packets (column 7, lines 45-55; column 8, lines 17-28);

correlating a traffic flow characteristic with the interpreted service level for each of the one or more traffic flows (column 7, lines 45-55; column 8, lines 17-28);

grouping the traffic flow characteristic with an associated destination (column 8, lines 45-51); and

forming an aggregate service level from two or more traffic flow characteristics with the associated destinations (column 8, lines 45-51),

wherein the aggregate service level for the associated destinations is used to determine an alternate path from the source addresses to the destination addresses (column 6, lines 9-13; column 22, lines 4-12).

Regarding claim 16, Bertin discloses the method wherein capturing the one or more data packets further comprises:

filtering data packets according to a filtering criterion (column 7, lines 24-39); and

removing the one or more packets up from the network (column 7, lines 45-67).

Regarding claim 17, Bertin discloses the method, wherein the packet information includes a source address and a destination address (column 7, lines 55-61).

Regarding claim 18, Bertin discloses the method, further comprising:

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receiving the grouped traffic flow characteristics for the associated destination (column 11, lines 45-52);

receiving a service level metric (column 11, lines 53-57);

interpreting whether the service level metric is violated (column 11, lines 58-60); and

upon such a violation, providing feedback for use in resolving such a violation (column 11, lines 61-67).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10-13, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crawly in view of Medard et al (US 6,047,331).

Crawly discloses all the claim limitations as stated above, except for a method that transmitting one or more probes over at least one of a plurality of networks from the source to the destination; receiving probes returning from the destination; and wherein the probe includes information about the network

Regarding claim 10, Medard teaches transmitting one or more probes over at least one of a plurality of networks from the source to the destination (column 9, lines 44-55); and

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Receiving one or more probes returning from the destination, wherein each returning probe includes alternative path information, which is used to determine the alternate path (column 9, line 44-column 10, line 5).

Regarding claim 11, Medard teaches that at least one probe includes information about the network latency of each of the plurality of paths from the source to the destination (column 11, lines 38-55).

Regarding claim 12, Medard teaches that at least one probe includes information about the network loss of each of the plurality of paths from the source to the destination (column 9, lines 44-55).

Regarding claim 13, Medard teaches that at least one probe includes information about network jitter of each of the plurality of paths from the source to the destination (column 9, lines 58-65).

It would have been obvious to one ordinary skill in the art at the time the invention was made to add a method that transmitting one or more probes over at least one of a plurality of networks from the source to the destination; receiving probes returning from the destination; and wherein the probe includes information about the network, such as that suggested by Medard, in the system of Crawly in order to implement automatic protection switching in networks.

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Regarding claims 26 and 27, Crawly discloses all the claim limitations as stated above, except for computer code.

Medard teaches a method and apparatus for planning and implementing automatic protection switching in networks. Further, Medard teaches that the method functions are implemented on computer systems (column 22, lines 59-67).

It would have been obvious to one ordinary skill in the art at the time the invention was made to use computer code, such as that suggested by Medard, in the system of Crawly in order to defines functions that can delivered to the destinations in many forms.

Allowable Subject Matter

6. Claims 19-25 are allowed.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Border (US 2002/0010765) discloses a method and system for prioritizing traffic in a network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (703) 308-4754. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (703) 305-4744. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

ST

October 14, 2003


JOHN PEZZLO
PRIMARY EXAMINER